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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/656,081

09/04/2003

Hae-Don Chon

678-1218 (P11022)

1856

7590

05/18/2005

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EXAMINER

SOTOMAYOR, JOHN B

ART UNIT

PAPER NUMBER

3662

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/656,081

Applicant(s)

CHON ET AL.

Examiner

John B. Sotomayor

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 26NOV04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed November 26, 2004 has been entered and considered. An initialed PTO-1449 by the Examiner is attached.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brockelsby et al ('732 or '954 or '846) in view of Cohn ('916) or Asbury et al ('794) or Haddad et al ('435), and further in view of EP 0 917 109 to Yoshida.

According to the remarks filed February 25, 2005 Applicant argues that the prior art differs from the present invention in that the prior art fails to show an RFID device "installed in the road". RFID devices have been known in the art for many years as a type of transponder type communication device. Nonetheless, the argument that the prior art fails to show an RFID device "installed in the road" is more specific than what the claim recites. The claim recites an RFID chip installed on a predetermined location of a road. This does not preclude some of the prior art systems. Clearly the concept of

placing transponders near the road for communicating information to a vehicle is shown throughout the prior art. The claimed RFID, being a well known transponder, is considered to be a well known alternative to one of ordinary skill in the art. Therefore the Examiner will maintain the rejection of the claims as follows.

The claimed invention, as represented by independent claim 1, is considered to be disclosed by Brockelsby et al ('732 or '954 or '846) who show a transponder system including, inter alia, an interrogation unit and a transponder unit in communication with each other. However, Brockelsby et al ('732 or '954 or '846) show a transponder unit located on the vehicle and the interrogator located on the roadway whereas the claimed invention sites the transponder on the roadway and the reader on the vehicle. Clearly this distinction cannot be held patentable since it the principle of reciprocity is well known in the electronic communication art. In other words, the communication channel established between either the claimed invention and Brockelsby et al ('732 or '954 or '846) can easily be switched. Nonetheless the prior art specifically shows an arrangement such as that claimed.

Cohn ('916) or Asbury et al ('794) or Haddad et al ('435) is cited to show an interrogation transponder communication system that includes, inter alia, the transponder located at the roadway and the reader located in the vehicle.

EP 0 917 109 to Yoshida is specifically cited to show another road communication system arrangement to include a micropatch antenna in a roadway in communication with a vehicle. Yoshida discloses at paragraph [0012] plurality of antennas 26 embedded at a center portion of a lane 24 (Fig. 3). Each antenna 26 may

be a plate-like antenna such as a microstrip antenna. However, the antennas, use in the present invention are in no way limited to the plate-like antenna and may take the other form if it is suitable to be located on the lane or embedded therein. Thus leading to the assertion that one of ordinary skill in the art is not limited to the type of antenna/transponder device that could be used as long as it is possible to embed the device in the road.

Thus it would have been obvious to one of ordinary skill in the art to locate the transponder on the roadway for the system in Brockelsby et al ('732 or '954 or '846) as taught and as motivated by Cohn ('916) or Asbury et al ('794) or Haddad et al ('435) and to use any device capable of being embedded in the road as taught and as motivated by the Yoshida reference in order to establish a communication channel there between. The remaining claims are considered to be either shown by the references or are well known technical variations in the art. For example, the references show RF communication signals, memory for storing vehicle position and other data.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Sotomayor whose telephone number is 571-272-6978. The examiner can normally be reached on Monday to Friday from 8:30AM to 5:00PM.

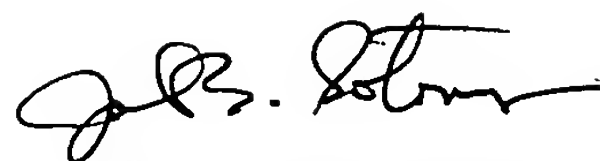
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom H. Tarcza, can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "John B. Sotomayor".

John B. Sotomayor  
Primary Examiner  
Art Unit 3662